SANYO

INSTRUCTION MANUAL **VDC-C1175VP**

COLOR CCD Camera

About this manual
● Before installing and using the camera, please read this manual carefully. Be sure to keep it handy for later reference.

Approvals: IP66/CE
● This unit has been certified to IP66 standards when properly installed. Use only an IP66 certified enclosure or an electrical box. Ensure all openings in enclosure are sealed as per manufacturer's instructions.

Depending on the conditions of use, installation and environment, please be sure to make the appropriate settings and adjustments. If you need help with installation and/or settings, please consult your dealer.

MAIN FEATURES

■ **Complies with IP66 international rating**

■ **Ceiling / Wall mount housing**

■ **Built-in vari-focal lens**

■ **1/3-inch solid-state image device CCD**

■ **Number of total pixels: 470 K pixels**

■ **Internal sync / Line-Lock automatic swichable**

■ **Dual power supply: AC 24 V / DC 12 V (lead wire)**

■ **High sensitivity, minimum required illumination: 1.0 lx at F2.0 lens**

Dimensions: mm

162.0
35.0
114.8
100.5

PRECAUTIONS

■ **In case of problem**
Do not use the unit if smoke or a strange odor comes from the unit, or if it seems not to function correctly. Turn off the power immediately, and consult your dealer or an Authorized Sanyo Service Center.

■ **Do not open or modify**
Do not open the cabinet except during adjustment, as it may be dangerous and cause damage to the unit. For repairs, consult your dealer or an Authorized Sanyo Service Center.

■ **Do not put objects inside the unit**
Make sure that no metal objects or flammable substance get inside the unit. If used with a foreign object inside, it could cause a fire, a short-circuit or damage.

■ **Be careful when handling the unit**
To prevent damage, do not drop the unit or subject it to strong shock or vibration.

■ **Install away from electric or magnetic fields**
If installed close to a TV, radio transmitter, magnet, electric motor, transformer, or audio speakers, the magnetic field they generate may cause image distortion.

■ **Protect from humidity and dust**
To prevent damage, do not install the unit where there is greasy smoke or steam, where the humidity may get too high, or where there is a lot of dust.

■ **Protect from high temperatures**
Do not install close to stoves, or other heat sources, such as spotlights, etc., or where it could be subject to direct sunlight. Be careful when installing close to the ceiling, in a kitchen or boiler room, as the temperature may rise to high levels.

■ **Cleaning**
● Dirt can be removed from the cabinet by wiping it with a soft cloth. To remove stains, wipe with a soft cloth moistened with a soft detergent solution and wrung dry, then dry by wiping with a soft cloth.
● Do not use benzine, thinner or other chemical products on the cabinet, as this may cause deformation and paint peeling. Before using a chemical cloth, make sure to read all accompanying instructions. Make sure that no plastic or rubber material comes into contact with the cabinet for a long period of time, as this may cause damage or paint peeling.

■ **Mounting Surface**
The mounting surface material must be strong enough to secure the unit. Plasterboard without a backing plate is not recommended.

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TROUBLESHOOTING

Before sending the camera out for repair, check the items below. If the problem persists after checking these items, consult your dealer or an Authorized Sanyo Service Center.

■ **If no image appears**
● Is the coaxial cable attached securely?
● Are the power and voltage normal?
● Is there adequate illumination?

■ **If the image is unclear**
● Is the lens in focus?
● Is the lens dirty?
  Dirt or fingerprints on the lens can adversely affect the image. Gently wipe any dirt or fingerprints off the lens with a soft cloth or lens cleaning paper and cleaning fluid (commercially available).
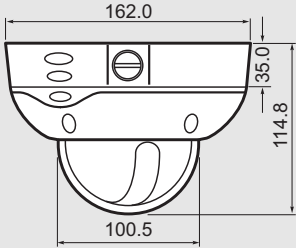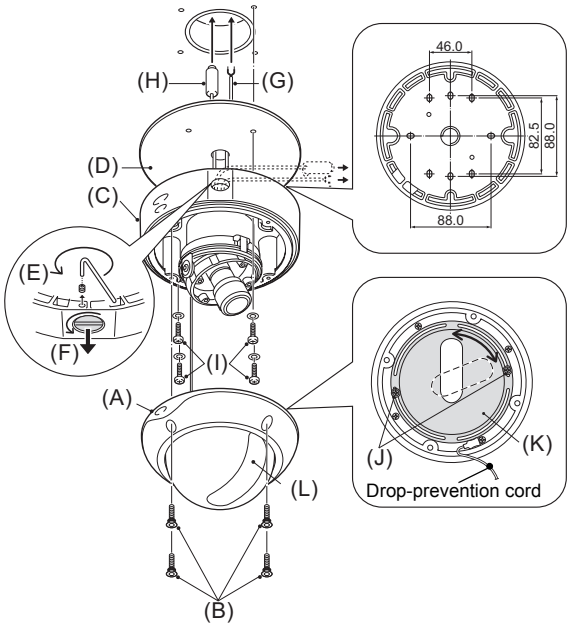● Is the monitor adjusted correctly?

SERVICE

The camera is a precision instrument. Handle it carefully and always follow the safety precautions. If the camera requires service, never try to repair it yourself or open the casing.
For servicing, maintenance, or repairs, consult your dealer or an Authorized Sanyo Service Center.

SPECIFICATIONS

Scanning system	: PAL standard TV system 625 TV lines, 25 frames/s
Interlace	: PLL 2:1 interlace
Image device	: 1/3-inch solid-state image device CCD
Number of pixels in image area	: 752 (H) × 582 (V), 440 K pixels
Sync system	: DC 12 V user : Internal sync AC 24 V user : Line-lock
Resolution	: 460 TV lines horizontally
Video output level	: 1.0 V(p-p)/75 Ω, composite
Image S/N ratio	: More than 46 dB at gain control off
Pan/Tilt adjustment	: Pan : 360 degrees, Tilt : ±80 degrees
Lens	: Built-in variable focal lens, f=4 – 8 mm, F2.0 – 2.8
Operating environment	: Temperature: -10°C – +50°C (14°F – 122°F) Humidity: less than 90%RH (no condensation)
Power supply	: AC 24 V ±10%, 50 Hz/DC 12 – 15 V ±10%
Power consumption	: 2.8 W
Weight	: Approx. 1.6 kg
Accessories	: Hexagon wrench (large) .... 1 Hexagon wrench (medium) ... 1 Hexagon wrench (small)........ 1 Cushioning sheet 1

Appearance and specifications are subject to change without prior notice.

INSTALLATION

(H) (G)
(D)
(C)
(E)
(F)
(A)
(I)
(J) (K)
(L)
Drop-prevention cord
(B)
46.0
82.5
88.0
88.0

⚠ **CAUTION**
● When installing the camera to the ceiling or the wall, make sure to properly perform waterproofing for the holes in the ceiling or the wall.
● When setting up this camera, make sure that it is installed securely. Check that the installation location is strong enough to bear the camera before proceeding. Install to the ceiling or the wall with no unevenness in its surface. And be sure to embed the screws at least 35 mm and ⌀3.5 – 5 mm into the ceiling or the wall. If the screw holes are too shallow, the camera may fall down. In addition, do not touch the camera unit except when settings and adjustments are necessary.
● Install where the temperature range will stay between -10°C (14°F) and 50°C (122°F). (no condensation)

1 Use the supplied hexagon wrench (large) to remove the four fixing screws (B) of dome cover (A).

2 Make screw holes and a cable hole in the supplied cushioning sheet (D) that attaches to the back of the camera unit (C).

3 Attach the cushioning sheet (single-sided tape) to the back of the camera unit.

4 Align the camera unit with the surface of the ceiling or the wall, make marks on the ceiling or the wall in the places where the screw holes are to be drilled, and then drill the four holes.

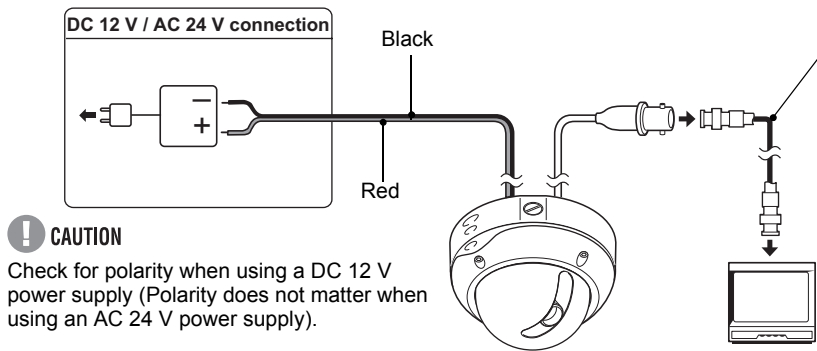**5** Cut a hole in the ceiling or the wall for routing the cables.

⚠ **CAUTION**
If not routing the cables inside the ceiling or the wall, open the conduit hole cover (F) after removing a screw (E) by supplied hexagon wrench (medium) and pass the cables through the conduit hole.

6 Pass the power cable (G) and video cable (H) from the camera unit through the cable hole in the ceiling or the wall.

7 Align the four screw holes in the camera unit (C) with the screw holes in the ceiling or the wall, and then secure the camera in place by tightening the four or more screws (I) through the washers.

8 Secure the dome cover (A) by tightening the screws (B).

9 Carry out the settings and adjustments for the camera. Refer to "CONNECTIONS AND SETTINGS" for camera settings and lens adjustments.

10 If the dome liner (K) is secured in place, loosen the screw (J). Adjust the dome liner (K) so that the dome camera's lens is visible from the camera window (L), and then use a phillips screwdriver to fix the dome cover.
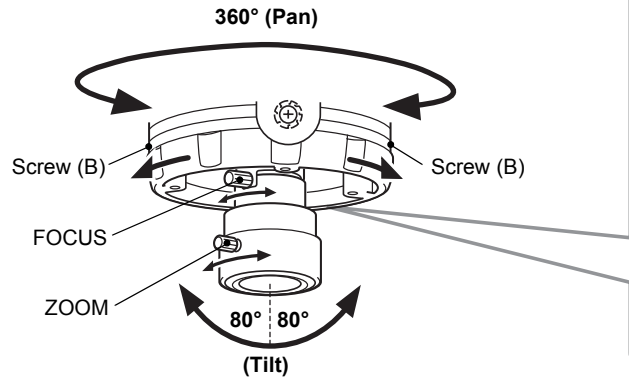
CONNECTIONS AND SETTINGS

■ CONNECTIONS

DC 12 V / AC 24 V connection

Black

Red

! CAUTION

Check for polarity when using a DC 12 V power supply (Polarity does not matter when using an AC 24 V power supply).

Supported coaxial cables

You can use any of the following coaxial cables:
● RG-59U (3C-2V)　Length: 250 m max.
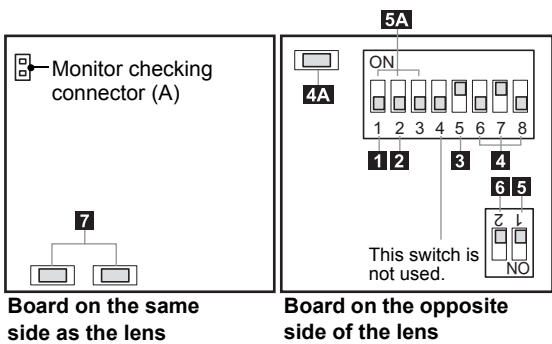● RG-6U (5C-2V)　Length: 500 m max.
● RG-11U (7C-2V)　Length: 600 m max.

! CAUTION

● When using an RG-59U (3C-2V) cable, do not use it on piping or air wiring.
● Select the cable according to the distance between the devices you wish to connect.
● If you use a cable other than the types above, the image or sync signal will be attenuated and will not be transmitted correctly.

■ LENS ADJUSTMENTS

360° (Pan)

Screw (B)　Screw (B)

FOCUS

ZOOM

80° 80°

(Tilt)

■ CAMERA SETTINGS

Monitor checking connector (A)

4A

5A

ON

1 2 3 4 5 6 7 8

1 2　**3**　**4**

6 5

This switch is not used.

7

Board on the same side as the lens

Board on the opposite side of the lens

■ CHECKING THE CAMERA IMAGE

You can use the monitor checking cable (sold separately) to display an image on a monitor when setting up the camera to check the surveillance angle and range, lens focus, etc.
Connect the connector of the monitor checking cable to the monitor checking connector (A) on the circuit board and connect the jack of the monitor checking cable to the monitor.

NOTE:
● When monitoring lighting or other extremely bright objects (which exceed the maximum required illumination), smearing may occur in the vertical or horizontal direction (either above and below the high-brightness object or as a perpendicular band). In such a case, adjust the angle of illumination and other factors while observing the monitor.
● If fluorescent lighting is used where the camera is installed, the object will flicker as a result. This type of phenomenon can be avoided by replacing the fluorescent lighting with incandescent lamps.

■ LENS ADJUSTMENTS

Once the camera has been installed, adjust the lens section.

! CAUTION

Be careful not to touch the lens section when changing the angle of the camera.

1 **Adjust the pan position (360°) and the tilt position (±80°).**
2 **Loosen the zoom lever screw, turn the zoom lever to the right/ left to determine the zoom position while viewing the camera images on the monitor, and then re-tighten the screw.**
3 **Loosen the focus lever screw, turn the focus lever to the right/ left to detemine the focus position while viewing the camera images on the monitor, and then re-tighten the screw.**

NOTE on image direction:
If the monitor image is misaligned, follow the steps below to adjust.
① Loosen the screws (B) with the supplied hexagon wrench (small).
② Turn the indented dial to adjust the image direction.
③ Tighten the screws (B) after adjustments are finished.

■ CAMERA SETTINGS

The camera comes pre-adjusted and ready to install at time of factory shipment, but you may want to make settings to adapt to the operating conditions or installation environment.
If you have trouble adjusting the camera, consult your dealer or an Authorized Sanyo Service Center.

(♦=Factory default setting)

● Flicker compensation 1

(On) 1	Corrects screen flickering that occurs when positioned under fluorescent lights that use a 60 Hz power supply frequency.
♦ **(Off)** 1	This function is off.

NOTE:
Even if flickerless is set, the iris function will be fixed.

● Backlight compensation 2

(On) 2	When an image is backlit.	
♦ **(Off)** 2	This function is off.	

● Gain control 3

For adjusting the sensitivity of the camera. Use this setting for shooting in dark environments.

♦ **(High:26 dB)** 5	Increased sensitivity allows shots to be taken in dark environments. • This setting causes noise generation and a grainy image.
(Low:20 dB) 5	Set this when there is excessive noise in the high setting mode.

● Color compensation (White balance) 4

Adjusts the balance of colors. When AUTO TRACKING WHITE BALANCE (default setting) does not work properly, select other settings.

	Switches 6 7 8	
♦ **AUTO TRACKING WHITE BALANCE**	6 7 8	Automatically adjusts the white balance.
AUTO WHITE BALANCE	6 7 8	Automatically adjusts the white balance when the object is near.
MANUAL WHITE BALANCE	6 7 8	Fine-tunes the white balance manually. Adjust the color using 7 buttons (Left:Red, Right:Blue). If an AC 24 V power supply user sets MANUAL WHITE BALANCE, sync adjustment cannot be performed. To perform sync adjustment, do it with 7 buttons before setting MANUAL WHITE BALANCE.
WHITE BALANCE LOCK	6 7 8	Adjusts the white balance when the brightness is constant. After setting the switch at left, keep pressing the white balance lock button 4A until the desired tint is achieved and release it to set.
INDOOR SETTING (LIGHT 1)	6 7 8	Set for indoors, when the room is lit by fluorescent or incandescent lights (3200° K).
INDOOR SETTING (LIGHT 2)	6 7 8	Set for indoors, when the room is lit by fluorescent lights (4200° K).
INDOOR SETTING (LIGHT 3)	6 7 8	Set for indoors, when the room is lit by fluorescent lights (4700° K).
OUTDOOR SETTING	6 7 8	Set for outdoor light (6500° K).

● Electronic shutter speed setting 5

(On) 1	Changes the switch settings for 5A SW 1 – SW 3 to change the electronic shutter speed. At this time the actual Flickerless and Backlight Compensation are ignored, and the iris function is fixed.
♦ **(Off)** 1	This function is off.

When the electronic shutter speed setting is set to "ON", a combination of the following three switches 5A can be used to set up to eight speed levels.

(Unit: seconds)

Shutter speed	Switches 5A	Shutter speed	Switches 5A
1/50	1 2 3	1/1000	1 2 3
1/120	1 2 3	1/2000	1 2 3
1/250	1 2 3	1/4000	1 2 3
1/500	1 2 3	1/10000	1 2 3

NOTE:
Using the high speed electronic shutter indoors with low lighting will give darker pictures. In such a case, add some lights to make sure the lighting is sufficient.

● Gamma compensation 6

For adjusting the gamma compensation, use this setting to adjust the signal correction/contrast so that the image looks natural.

(High) 2	Gamma is set to 0.6. Makes the gamma compensation stronger than the default (low) setting.
♦ **(Low)** 2	Gamma is set to 0.45.

● Sync adjustment 7
(Only when using an AC 24 V power supply)

Synchronizes the camera with power frequency when two or more cameras are connected via a switcher unit. When the image on the monitor rolls vertically, adjust the phase.

(A) If using this unit as the second or subsequent camera;

▭ ▭	Adjust the roll by pressing each button.

(B) If using this unit as the first camera;
Adjust the roll using the phase adjuster on the second and subsequent cameras.

NOTE:
● When using an AC 24 V power supply to connect the camera to a monitor, internal sync. is set. (The phase adjuster does not function.)
● When using a DC 12 V power supply, the sync setting is set to internal sync.
● If MANUAL WHITE BALANCE is set, sync adjustment cannot be performed. Change to a different white balance setting, and adjust the sync. And then set MANUAL WHITE BALANCE again.